

DOCKET NO.: ISIS-5326

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Brenda F. Baker, et al.

Application No.: 10/700,930

Filing Date: November 4, 2003

For: MODIFIED OLIGONUCLEOTIDES FOR USE IN RNA INTERFERENCE

Confirmation No.: 5950

Group Art Unit: 1645

Examiner: Not Yet Assigned

DATE OF DEPOSIT

*April 22, 2004*

I HEREBY CERTIFY THAT THIS PAPER IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE UNITED STATES PATENT AND TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

*Elizabeth A. McLoud*

TYPED NAME: Elizabeth A. McLoud

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☒ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in § 1.491, before the mailing date

of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- ☐ In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:

☐ Certification in Accordance with § 1.97(e) is attached; or

☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.

- ☐ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:

☐ Certification in Accordance with § 1.97(e) is attached;

or

☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.

- ☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).

- ☐ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

- ☒ Copies of references listed on the attached Form PTO-1449 are enclosed herewith
- ☒ Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

## EXCEPT THAT:

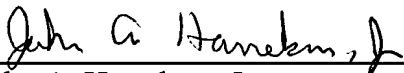
- ☒ In view of the voluminous nature of references 3, 16, 23, 24, 25, and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- ☒ In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
  - ☒ Copies of references **3-28, 156-183, 198-204** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/659,440**, filed **June 6, 1996** now U.S. Patent No. **5,898,031**; copies of references **29-112, 184-192, 205-206** listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. **08/870,608**, filed **June 6, 1997** now U.S. Patent No. **6,107,094**; copies of references **113-129, 193-195**

and 207 listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. 09/479,783, filed January 7, 2000.

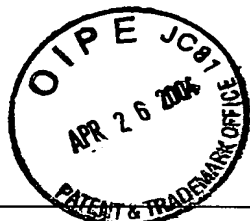
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- ☐ The relevance of those listed references which are not in the English language is as follows:
- ☒ There are no listed references which are not in the English language.

Date: April 22, 2004

  
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<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5326	Application No. 10/700,930
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**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

*	3	Ausubel, et al., Eds., Current Protocols in Molecular Biology, <b>1988</b> , Wiley & Sons, New York
	4	Beaucage S. and Iyer, R., "Advances in the synthesis of oligonucleotides by the phosphoramidite approach", <i>Tetrahedron Letters</i> , <b>1992</b> , 48, 2223-2311
	5	Beaucage S. and Iyer, R., "The synthesis of modified oligonucleotides by the phosphoramidite approach and their applications", <i>Tetrahedron</i> , <b>1993</b> , 49, 6123-6194
	6	Bhat, et al., "A Simple and Convenient Method for the Selective N-Acylations of Cytosine Nucleosides", <i>Nucleosides and Nucleotides</i> , <b>1989</b> , 8, 179-183
	7	Crooke, S.T. and Bennett, C.F., "Progress in Antisense Oligonucleotide Therapeutics", <i>Annu. Rev. Pharmacol. Toxicol.</i> , <b>1996</b> , 36, 107-129
	8	Crooke, et al., "Kinetic characteristics of Escherichia coli Rnase H1: cleavage of various antisense oligonucleotide-RNA duplexes", <i>Biochem. J.</i> , <b>1995</b> , 312, 599-608
	9	Dagle, et al., "Targeted degradation of mRNA in Xenopus oocytes and embryos directed by modified oligonucleotides: studies of An2 and cyclin in embryogenesis", <i>Nucleic Acids Research</i> , <b>1990</b> , 18, 4751-4757
	10	Dagle, et al., "Pathways of Degradation and Mechanism of Action of Antisense Oligonucleotides in <i>Xenopus laevis</i> Embryos", <i>Antisense Res. And Dev.</i> , <b>1991</b> , 1, 11-20
	11	Dagle, et al., "Physical properties of oligonucleotides containing phosphoramidate-modified internucleoside linkages", <i>Nucleic Acids Research</i> , <b>1991</b> , 19, 1805-1810
	12	Englisch, U. And Gauss, D.H., "Chemically Modified Oligonucleotides as Probes and Inhibitors", <i>Angewandte Chemie, International Edition Engl.</i> , <b>1991</b> , 30, 613-629

**EXAMINER**

**DATE CONSIDERED**

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	<b>13</b>	Haeuptle and Dobberstein, "Translation arrest by oligonucleotides complementary to mRNA coding sequences yields polypeptides of predetermined length", <i>Nucleic Acids Res.</i> , <b>1986</b> , <i>14</i> , 1427-1448	
	<b>14</b>	Eder, P.S. and Walder, J.A., "Ribonuclease H from K562 Human Erythroleukemia Cells", <i>J. Biol. Chem.</i> , <b>1991</b> , <i>266</i> , 6472-6479	
	<b>15</b>	Kawasaki, et al., "Uniformly Modified 2'-Deoxy-2'-fluoro Phosphorothioate Oligonucleotides as Nuclease-Resistant Antisense Compounds with High Affinity and Specificity for RNA Targets", <i>J. Med. Chem.</i> , <b>1993</b> , <i>36</i> , 831-841	
*	<b>16</b>	Kawasaki, et al., "Synthesis and Biophysical Studies of 2'-dRIBO-2'-F Modified Oligonucleotides", ISIS Pharmaceuticals, Inc., 2280 Faraday Avenue, Carlsbad, CA 92008, USA	
	<b>17</b>	Martin, "Ein neuer Zugang zu 2'-O-Alkylribonucleosiden und Eigenschaften deren Oligonucleotide", <i>Helv. Chim. Acta.</i> , <b>1995</b> , <i>78</i> , 486-504	
	<b>18</b>	Monia, et al., "Selective Inhibition of Mutant Ha-ras mRNA Expression by Antisense Oligonucleotides", <i>J. Biol. Chem.</i> , <b>1992</b> , <i>267</i> , 19954-19962	
	<b>19</b>	Monia, et al., "Evaluation of 2'-Modified Oligonucleotides Containing 2'-Deoxy Gaps as Antisense Inhibitors of Gene Expression", <i>J. Biol. Chem.</i> , <b>1993</b> , <i>268</i> , 14514-14522	
	<b>20</b>	Reese, C.B., et al., "4-(1,2,4-Triazol-1-yl)-and 4-(3-Nitro-1,2,4-triazol-1-yl)-1-(β-D-Arabinofuranosyl)cytosine(Ara-C)", <i>J. Chem. Soc. Perkin Trans. I</i> , 1982, pgs. 1171-1176	
	<b>21</b>	Robins, et al., "Nucleic acid related compounds. 41. Restricted furanose conformations of 3',5'-O(1,1,3,3-tetraisopropylidisiloxy-1,3-diyl)nucleosides provide a convenient evaluation of anomeric configuration <sup>1,2</sup> ", <i>Can. J. Chem.</i> , <b>1983</b> , <i>61</i> , 1911-1920	
	<b>22</b>	Saison-Behmoaras, T., et al., "Short modified antisense oligonucleotides directed against Ha-ras point mutation induce selective cleavage of the mRNA and inhibit T24 cells proliferation", <i>EMBO</i> , <b>1991</b> , <i>10</i> , 1111-1118	
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*	23	Concise Encyclopedia of Polymer Science and Engineering, pgs. 858-859, Kroschwitz, J.I., Ed., John Wiley & Sons, <b>1990</b>	
*	24	Oligonucleotide Synthesis, A Practical Approach, M.J. Gait, Ed., IRL Press, 1984	
*	25	Oligonucleotide and Analogs, A Practical Approach, F. Eckstein, Ed., IRL Press, 1991, Chapters 1-7	
	26	De Mesmeker, et al., "Antisense Oligonucleotides", <i>Acc. Chem. Res.</i> , <b>1995</b> , 28, 366-374	
	27	Sands, et al., "Biodistribution and Metabolism of Internally <sup>3</sup> H-Labeled Oligonucleotides. II. 3',5'-Blocked Oligonucleotides", <i>Am. Soc. Pharmacol. Exp. Ther.</i> , <b>1995</b> , 47, 636-646	
	28	Strickland, et al., "Antisense RNA Directed Against the 3' Noncoding Region Prevents Dormant mRNA Activation in Mouse Oocytes", <i>Science</i> , <b>1988</b> , 241, 680-684	
	29	Goodchild, et al., "Conjugates of Oligonucleotides and Modified Oligonucleotides: A Review of their Synthesis and Properties", <i>Bioconjugate Chem.</i> , <b>1990</b> , 1(3), 165-187	
	30	Menelev, et al., <i>Bioorg. &amp; Med. Chem. Lett.</i> , <b>1994</b> , 4(24), 2929-2934	
	31	Lengyel, <i>J. Enzym. Res.</i> , <b>1987</b> , 7, 511-519	
	32	Milligan, <i>J. Med. Chem.</i> , <b>1993</b> , 36, 1923	
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	33	Tseng, et al., "Antisense Oligonucleotide Technology in the Development of Cancer Therapeutics", <i>Cancer Gene Therapeutics</i> , <b>1994</b> , <i>1</i> , 65-71	
	34	Westermann, et al., "Inhibition of expression of SV40 virus large T-antigen by antisense oligodeoxyribonucleotides", <i>Biomed. B. Acta.</i> , <b>1989</b> , <i>48</i> , 85-93	
	35	Stein, C.A. et al., "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really Magical?", <i>Science</i> , <b>1993</b> , <i>261</i> , 1004-1012	
	36	Stull, et al., "Antigene, Ribozyme and Aptamer Nucleic Acid Drugs: Progress and Prospects", <i>Pharm. Res.</i> , <b>1995</b> , <i>Pharm. Rev.</i> , <i>12</i> , 465-482	
	37	Uhlmann, et al., "Antisense Oligonucleotides: A New Therapeutic Principle", <i>Chem. Rev.</i> , <b>1990</b> , <i>90</i> , 543	
	38	Akashi, et al., "Novel Stationary Phases for Affinity Chromatography. Nucleobase-Selective Recognition of Nucleosides and Nucleotides on Poly(9-vinyladenine)-Supported Silica Gel <sup>1</sup> ", <i>Chem. Letters</i> , <b>1988</b> , 1093-1096	
	39	Alberts, et al., "DNA-Cellulose Chromatography", <i>Meth. Enzymol.</i> , <b>1971</b> , <i>21</i> , 198-217	
	40	Arndt-Jovin, et al., "Covalent Attachment of DNA to Agarose", <i>Eur. J. Biochem.</i> , <b>1975</b> , <i>54</i> , 411-418	
	41	Blanks, et al., "An oligodeoxynucleotide affinity column for the isolation of sequence specific DNA binding proteins", <i>Nucleic Acids Res.</i> , <b>1988</b> , <i>16</i> , 10283-10299	
	42	Blomberg, P., "Control of replication of plasmid R1: the duplex between the antisense RNA, CopA, and its target, CopT, is processed specifically <i>in vivo</i> and <i>in vitro</i> by Rnase III", <i>EMBO J.</i> , <b>1990</b> , <i>9</i> , 2331-2340	
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	<b>43</b>	Bunemann, et al., Immobilization of denatured DNA to macroporous supports: I. Efficiency of different coupling procedures", <i>Nucleic Acids Res.</i> , <b>1982</b> , 10, 7163-7180	
	<b>44</b>	Bunemann, H., "Immobilization of denatured DNA to macroporous supports: II. Steric and kinetic parameters of heterogeneous hybridization reactions", <i>Nucleic Acids Res.</i> , <b>1982</b> , 10, 7181-7196	
	<b>45</b>	Chodosh, et al., "A Single Polypeptide Possesses the Binding and Transcription Activities of the Adenovirus Major Late Transcription Factor", <i>Mol. Cell. Biol.</i> , <b>1986</b> , 6, 4723-4733	
	<b>46</b>	Crooke, et al., "Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice", <i>J. Pharmacol. Exp. Ther.</i> , <b>1996</b> , 277, 923-927	
	<b>47</b>	Dake, et al., "Purification and Properties of the Major Nuclease from Mitochondria of <i>Saccharomyces cerevisiae</i> ", <i>J. Biol. Chem.</i> , <b>1988</b> , 263, 7691-7702	
	<b>48</b>	Day, et al., "Immobilization of polynucleotides on magnetic particles", <i>Biochem. J.</i> , <b>1991</b> , 278, 735-740	
	<b>49</b>	Drmanac, et al., "DNA Sequence Determination by Hybridization: A Strategy for Efficient Large-Scale Sequencing", <i>Science</i> , <b>1993</b> , 260, 1649-1652	
	<b>50</b>	Duncan, et al., "Affinity Chromatography of a Sequence-Specific DNA Binding Protein Using Teflon-Linked Oligonucleotides", <i>Anal. Biochem.</i> , <b>1988</b> , 169, 104-108	
	<b>51</b>	Dunn, J.J. and Studier, F.W., "Effect of RNAase III Cleavage on Translation of Bacteriophage T7 Messenger RNAs", <i>J. Mol. Biol.</i> , <b>1975</b> , 99, 487-499	
	<b>52</b>	Elela, et al., "RNase III Cleaves Eukaryotic Preribosomal RNA at a U3 snoRNP-Dependent Site", <i>Cell</i> , <b>1996</b> , 85, 115-124	
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	<b>53</b>	Fahy, et al., "Design and synthesis of polyacrylamide-based oligonucleotide supports for use in nucleic acid diagnostics", <i>Nucl. Acids Res.</i> , <b>1993</b> , <i>21</i> , 1819-1826
	<b>54</b>	Fishel, et al., "Z-DNA Affinity Chromatography", <i>Methods Enzymol.</i> , <b>1990</b> , <i>184</i> , 328-342
	<b>55</b>	Fodor, et al., "Light-Directed, Spatially Addressable Parallel Chemical Synthesis", <i>Science</i> , <b>1991</b> , <i>251</i> , 767-773
	<b>56</b>	Fusi, et al., "Ribonucleases from the extreme thermophilic archaebacterium <i>S. Solfataricus</i> ", <i>Eur. J. Biochem.</i> , <b>1993</b> , <i>16</i> , 305-310
	<b>57</b>	Gabrielsen, et al., "Magnetic DNA affinity purification of yeast transcription factor $\tau$ -a new purification principle for the ultrarapid isolation of near homogeneous factor", <i>Nucleic Acids Research</i> , <b>1989</b> , <i>17</i> , 6253-6267
	<b>58</b>	Gbenle, " <i>Trypanosoma brucei</i> : Calcium-Dependent Endoribonuclease is Associated with Inhibitor Protein", <i>Exp. Parasitol.</i> , <b>1990</b> , <i>71</i> , 432-438
	<b>59</b>	Gbenle, "Simultaneous Isolation of Cytoplasmic Endoribonuclease and Exoribonuclease of <i>Trypanosoma Brucei</i> ", <i>Mol. Biochem. Parasitol.</i> , <b>1985</b> , <i>15</i> , 37-47
	<b>60</b>	Gerdes, K., et al., "Mechanism of Killer Gene Activation. Antisense RNA-dependent Rnase III Cleavage Ensures Rapid Turn-over of the Stable-Hok, <i>SrnB</i> and <i>PndA</i> Effector Messenger RNAs", <i>J. Mol. Biol.</i> , <b>1992</b> , <i>226</i> , 637-649
	<b>61</b>	Gingeras, et al., "Hybridization properties of immobilized nucleic acids", <i>Nucl. Acids Res.</i> , <b>1987</b> , <i>15</i> , 5373-5391
	<b>62</b>	Goldkorn, T. And Prockop, D.J., "A simple and efficient enzymatic method for covalent attachment of DNA to cellulose. Application for hybridization-restriction analysis and for <i>in vitro</i> synthesis of DNA probes", <i>Nucleic Acids Res.</i> , <b>1986</b> , <i>14</i> , 9171-9191
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	63	Goss, T.A. and Bard, M., "High-performance affinity chromatography of DNA", <i>J. Chromatogr.</i> , 1990, 508, 279-287
	64	Guo, et al., "Direct fluorescence analysis of genetic polymorphisms by hybridization with oligonucleotide arrays on glass supports", <i>Nucl. Acids Res.</i> , 1994, 22, 5456-5465
	65	Kadonaga, J.T. and Tjian, R., "Affinity purification of sequence-specific DNA binding proteins", <i>Proc. Natl. Acad. Sci. USA</i> , 1986, 83, 5889-5893
	66	Kadonaga, J.T., "Purification of Sequence-Specific Binding Proteins b DNA Affinity Chromatography", <i>Methods in Enzymology</i> , 1991, 208, 10-23
	67	Kasher, et al., "Rapid Enrichment of HeLa Transcription Factors IIIB and IIIC by Using Affinity Chromatography Based on Avidin-Biotin Interactions", <i>Mol. And Cell. Biol.</i> , 1986, 6, 3117-3127
	68	Kawaguchi, et al., "Purification of DNA-binding transcription factors by their selective adsorption of the affinity atex particles", <i>Nucleic Acids Research</i> , 1989, 17, 6229-6240
	69	Kennedy, "Hydrophobic Chromatography", <i>Methods in Enzymology</i> , 1990, 182, 339-343
	70	Knecht, D., "Application of Antisense RNA to the Study of the Cytoskeleton: Background, Principles, and a Summary of Results Obtained with Myosin Heavy Chain", <i>Cell Motil. and Cytoskel.</i> , 1989, 14, 92-102
	71	Knochbin and Lawrence, "An antisense RNA involved in p53 mRNA maturation in murine erythroleukemia cells induced to differentiate", <i>EMBO J.</i> , 1989, 8, 4107-4114
	72	Krinke, L. And Wulff, D., "RNase III-dependent hybrolsis of $\lambda$ cII-O gene mRNA mediated by $\lambda$ OOP antisense RNA", <i>Genes &amp; Devel.</i> , 1990, 4, 2223-2233
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	<b>73</b>	Krystal, et al., "N-myc mRNA Forms an RNA-RNA Duplex with Endogenous Antisense Transcripts", <i>Mol. And Cell. Biol.</i> , <b>1990</b> , 10, 4180-4191				
	<b>74</b>	Liao, "A pyrimidine-guanine sequence-specific ribonuclease from <i>Rana catesbeiana</i> (bullfrog) oocytes", <i>Nucl. Acids Res.</i> , <b>1992</b> , 20, 1371-1377				
	<b>75</b>	Lohrmann, et al., "New Solid Supports for DNA Synthesis" <i>DNA</i> , <b>1984</b> , 3, 122				
	<b>76</b>	Lund, et al., "Assessment of methods for covalent binding of nucleic acids to magnetic beads, Dynabeads™, and the characteristics of the bound nucleic acids in hybridization reactions", <i>Nucl. Acids Res.</i> , <b>1988</b> , 16, 10861-10880				
	<b>77</b>	Maniak, M. And Nellen, W., "Evidence for a feedback regulated back-up promoter which controls permanent expression of a <i>Dictyostelium</i> gene", <i>Nucl. Acids Res.</i> , <b>1990</b> , 18, 5375-5380				
	<b>78</b>	Matson, et al., "Biopolymer Synthesis on Polypropylene Supports", <i>Anal. Biochem.</i> , <b>1994</b> , 217, 306-310				
	<b>79</b>	Maskos, U. And Southern, E.M., "Oligonucleotide hybridisations on glass supports: a novel linker for oligonucleotide synthesis and hybridisation properties of oligonucleotides synthesised <i>in situ</i> ", <i>Nucl. Acids. Res.</i> , <b>1992</b> , 20, 1679-1684				
	<b>80</b>	Meegan, J.M. and Marcus, P.I., "Double-Stranded Ribonuclease Coinduced with Interferon", <i>Science</i> , <b>1989</b> , 244, 1089-1091				
	<b>81</b>	Narhi, et al., "Hydrophobic Interaction Chromatography in Alkaline pH", <i>Anal. Biochem.</i> , <b>1989</b> , 182, 266-270				
	<b>82</b>	Nellen, W., C., "What makes an mRNA anti-sense-itive?", <i>Curr. Opin. Cell. Biol.</i> , <b>1993</b> , 18, 419-424				
<b>EXAMINER</b>			<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5326	Application No. 10/700,930
		Applicant Brenda F. Baker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5950	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	83	Nellen, W., et al., "Mechanisms of gene regulation by endogenous and artificially introduced antisense RNA", <i>Biochem., Soc. Trans.</i> , <b>1992</b> , 20, 750-754	
	84	Nitta, et al., "Purification and Some Properties of Ribonuclease from <i>Xenopus laevis</i> Eggs", <i>Biol. Pharm. Bull.</i> (Jpn.), <b>1993</b> , 16, 353-356	
	85	Noguchi, et al., "Characterization of an Antisense Inr Element in the eIF-2 $\alpha$ Gene", <i>J. Biol. Chem.</i> , <b>1994</b> , 269, 29161-29167	
	86	Noyes, et al., "Nucleic Acid Hybridization Using DNA Covalently Coupled to Cellulose", <i>Cell</i> , <b>1975</b> , 5, 301-310	
	87	Pease, et al., "Light-generated oligonucleotide arrays for rapid DNA sequence analysis", <i>Proc. Natl. Acad. Sci. USA</i> , <b>1994</b> , 91, 5022-5026	
	88	Pon, et al., "Derivatization of Controlled Pore Glass Beads for Solid Phase Oligonucleotide Synthesis", <i>BioTech.</i> , <b>1988</b> , 6, 768-773	
	89	Prokipcak, et al., "Purification and Properties of a Protein that Binds to the C-terminal Coding Region of Human c-myc mRNA", <i>J. Biol. Chem.</i> , <b>1994</b> , 269, 9261-9269	
	90	Saito, H. And Richardson, C., "Processing of mRNA by Ribonuclease III Regulates Expression of Gene 1.2 of Bacteriophage T7", <b>1981</b> , <i>Cell</i> , 27, 533-542	
	91	Schott, "Template-Chromatographie An Stationar Gebundenen Oligonukleotiden", <i>J. Chromatogr.</i> , <b>1975</b> , 115, 461-476	
	92	Seliger, H., "Handelsubliche Polymere als Trager in der Oligonucleotidsynthese, 1", <i>Die Makromolekulart Chemie</i> , <b>1975</b> , 176, 1611-1627	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5326		Application No. 10/700,930
	Applicant Brenda F. Baker, et al.		
	Filing Date November 4, 2003		Group 1645
	Confirmation No. 5950		
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>93</b>	Seliger, H., and Aumann, G., "Trager-Oigonucleotidsynthese an unvernetzten Copolymeren aus Vinylalkohol und N-Vinylpyrrolidon", <i>Die Makromolekulare Chemie</i> , <b>1975</b> , 176, 609-627	
	<b>94</b>	Seliger, H. And Aumann, G., "Oligonucleotide Synthesis on a Polymer Support Soluble in Water and Pyridine", <i>Tetrahedron Letters</i> , <b>1973</b> , No. 31, 2911-2914	
	<b>95</b>	Siddell, S.G., "RNA Hybridization to DNA Coupled with Cyanogen-Bromide-Activated Sephadex", <i>Eur. J. Biochem.</i> , <b>1978</b> , 92, 621-629	
	<b>96</b>	Smith, et al., "The synthesis of oigonucleotides containing an aliphatic amino group at the 5' terminus: synthesis of fluorescent DNA primers for use in DNA sequence analysis", <i>Nucl. Acids Res.</i> , <b>1985</b> , 13, 2399-2412	
	<b>97</b>	Stoldt, P. And Zillig, W., "Antisense RNA mediates transcriptional procesing in an archaebacterium, indicating a novel kind of RNase activity", <i>Mol. Microbiol.</i> , <b>1993</b> , 7, 875-882	
	<b>98</b>	Syvanen, et al., "Quantification of polymerase chain reaction products by affinity-based hybrid collection", <i>Nucl. Acids Res.</i> , <b>1988</b> , 16, 11327-11338	
	<b>99</b>	Szyf, et al., "Growth Regulation of Mouse DNA Methyltransferase Gene Expression", <i>J. Biol. Chem.</i> , <b>1991</b> , 266, 10027-10030	
	<b>100</b>	McBride, L.J. and Caruthers, M.H., "An Investigation of Several Deoxynucleoside Phosphoramidites Useful for Synthesizing Deoxyoligonucleotides", <i>Tetrahedron Letters</i> , <b>1983</b> , 24, 245-248	
	<b>101</b>	Van Ness, et al., "A versatile solid support system for oligodeoxynucleotide probe-based hybridization assays", <i>Nucleic Acids Research</i> , <b>1991</b> , 19, 3345-3350	
	<b>102</b>	Volk, et al., "An antisense transcript from the <i>Xenopus laevis</i> bFGF gene coding for an evolutionariy conserved 24 kd protein", <i>EMBO J.</i> , <b>1989</b> , 8, 2983-2988	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5326	Application No. 10/700,930
		Applicant Brenda F. Baker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5950	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	103	Wetlaufer, et al., "Surfactant-Mediated Protein Hydrophobic-Interaction Chromatography", <i>J. Chromatography</i> , <b>1986</b> , 359, 55-60	
	104	Wu, et al., "Purification and Properties of <i>Drosophila</i> Heat Shock Activator Protein", <i>Science</i> , <b>1987</b> , 238, 1247-1253	
	105	Wu, et al., "High Resolution Separation and Analysis of Biological Macromolecules", <i>Methods in Enzymology</i> , <b>1996</b> , 270, 27-47	
	106	Yashima, et al., "High-performance affinity chromatography of oligonucleotides on nucleic acid analogue immobilized silica gel columns", <i>J. Chromatog.</i> , <b>1992</b> , 603, 111-119	
	107	Yasuda, et al., "Purification and characterization of a ribonuclease from human spleen", <i>Eur. J. Biochem.</i> , <b>1990</b> , 191, 523-529	
	108	Zarytova, et al., "Affinity Chromatography of DNA Fragments and P-Modified Oligonucleotides", <i>Analyt. Biochem.</i> , <b>1990</b> , 188, 214-218	
	109	Zuckermann, et al., "Efficient methods for attachment of thiol specific probes to the 3'-ends of synthetic oligodeoxyribonucleotides", <i>Nucleic Acids Research</i> , <b>1987</b> , 15, 5305-5321	
	110	Hyrup, B. And Nielsen, P., "Peptide Nucleic Acids (PNA): Synthesis, Properties and Potential Applications", <i>Bioorganic &amp; Med. Chem.</i> , <b>1996</b> , 4, 5-23	
	111	Agrawal, S. et al., "Synthesis and Anti-HIV Activity of Oligoribonucleotides and Their Phosphorothioate Analogs," <i>Ann. N.Y. Acad. Sci.</i> , <b>1992</b> , 2-10	
	112	Shibahara, S. et al., "Inhibition of human immunodeficiency virus (HIV-1) replication by synthetic oligo-RNA derivatives," <i>Nucl. Acids Res.</i> , <b>1989</b> , 17(1), 239-252	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5326	Application No. 10/700,930
		Applicant Brenda F. Baker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5950	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	113	Agrawal, S., "Antisense Oligonucleotides: Towards Clinical Trials," <i>TIBTECH</i> , 1996, 14, 376-388	
	114	Branch, A., "A Good Antisense is Hard to Find," <i>TIBS</i> , 1998, 23, 45-50	
	115	Metlev, et al., "Study of antisense oligonucleotide phosphorothioates containing segments of oligodeoxynucleotides and 2'-methyloligoribonucleotides", <i>Bioorg. &amp; Med. Chem. Lett.</i> , 1994, 4, 2929-2934	
	116	Monia, et al., "Antitumor activity of a phosphorothioate antisense oligodeoxynucleotide targeted against c-raf kinase", <i>Nature Medicine</i> , 1996, 2, 668-675	
	117	Ohtsuki, et al., "Isolation and purification of double-stranded ribonuclease from calf thymus", <i>J. Biol. Chem.</i> , 1977, 252, 483-491	
	118	Arya, S. K. et al., "Inhibition of RNA Directed DNA Polymerase of Murine Leukemia Virus by 2'-O-Alkylated Polyadenylic Acids," <i>Biochemical and Biophysical Research Communications</i> , 1974, 59(2), 608-615	
	119	Arya, S. K. et al., "Inhibition of Synthesis of Murine Leukemia Virus in Cultured Cells by Polyribonucleotides and Their 2'-O-Alkyl Derivatives," <i>Molecular Pharmacology</i> , 1976, 12, 234-241	
	120	Hobbs, J. et al., "Polynucleotides Containing 2'-Amino 2'-deoxyribose and 2'-Azido-2'-deoxyribose <sup>†</sup> ," <i>Biochem.</i> , 1973, 12, 5138-5145	
	121	Hobbs, J. et al., "Poly 2'-Deoxy-2'-Aminouridylic Acid, 1972, 46(4), 1509-1515	
	122	Hobbs, J. et al., "Polynucleotides Containing 2'-Chloro-2'-deoxyribose," <i>Biochem.</i> , Eckstein et al., Ed., 1972, 11, 4336-4344	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	



<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5326		Application No. 10/700,930
	Applicant Brenda F. Baker, et al.		
	Filing Date November 4, 2003		Group 1645
	Confirmation No. 5950		
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>123</b>	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," <i>Nucl. Acids Res.</i> , <b>1995</b> , 23(14), 2677-2684	
	<b>124</b>	DeClercq, E. et al., "Influence of various 2- and 2'-substituted polyadenyl acids on murine leukemia virus reverse transcriptase," <i>Cancer Letters</i> , <b>1979</b> , 7, 27-37	
	<b>125</b>	Pieken, W. et al., "Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes," <i>Science</i> , <b>1991</b> , 253, 314-317	
	<b>126</b>	Pilet, J. et al., "Structural parameters of single and double helical polyribonucleotides," <i>Biochem Biophys Res Commun</i> , <b>1973</b> , 52(2), 517-523	
	<b>127</b>	Rottman, F. et al., "Polynucleotides Containing 2'-O-Methyladenosine. I. Synthesis by Polynucleotide Phosphorylase," <i>Biochem</i> , <b>1968</b> , 7, 2634-2641	
	<b>128</b>	Rottman, F. et al., "Polymers Containing 2'-O-Methylnucleotides. II. Synthesis of Heteropolymers," <i>Biochem</i> , <b>1969</b> , 8(11), 4354-4361	
	<b>129</b>	Zmudzka, B. et al., "Poly 2'-O-methylcytidylic acid and the role of the 2'-hydroxyl in polynucleotide structure," <i>Biochem Biophys Res Commun</i> , <b>1969</b> , 37(6), 895-901	
	<b>130</b>	Boutla, A., et al., "Short 5'-phosphorylated double-stranded RNAs induce RNA interference in <i>Drosophila</i> ," <i>Curr. Biol.</i> , <b>2001</b> , 11, 1776-1780	
	<b>131</b>	Brantl, S., "Antisense-RNA regulation and RNA interference," <i>Biochimica et Biophysica Acta</i> , <b>2002</b> , 1575, 15-25	
	<b>132</b>	Carmell, M.A., et al., "the argonaute family: tentacles that reach into RNAi, developmental control, stem cell maintenance, and tumorigenesis," <i>Genes and Development</i> , <b>2002</b> , 16, 2733-2742	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5326		Application No. 10/700,930			
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	Filing Date November 4, 2003		Group 1645			
	Confirmation No. 5950					
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>						
	<b>133</b>	Chiu, Y.-L., et al., "RNAi in human cells: basic structural and functional features of small interfering RNA," <i>Molecular Cell</i> , September <b>2002</b> , <i>10</i> , 549-561				
	<b>134</b>	Cogoni, C., et al., "Post-transcriptional gene silencing across kingdoms," <i>Curr. Opinion in Genes Dev.</i> , <b>2000</b> , <i>10</i> , 638-643				
	<b>135</b>	Elbashir, S.M., et al., "Functional anatomy of siRNAs for mediating efficient RNAi in <i>Drosophila melanogaster</i> embryo lysate," <i>EMBO J.</i> , <b>2001</b> , <i>29(23)</i> , 6877-6888				
	<b>136</b>	Elbashir, S.M., et al., "RNA interference is mediated by 21- and -22-nucleotide RNA's," <i>Genes &amp; Dev.</i> , <b>2001</b> , <i>15</i> , 188-200				
	<b>137</b>	Elbashir, S.M., et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," <i>Nature</i> , May 24, <b>2001</b> , <i>411</i> , 494-498				
	<b>138</b>	Fire, A., et al., "Potent and specific genetic interference by double-stranded RNA in <i>caenorhabditis elegans</i> ," <i>Nature</i> , February 19, <b>1998</b> , <i>391</i> , 806-811				
	<b>139</b>	Guo, S., et al., " <i>par-1</i> , a gene required for establishing polarity in <i>C. elegans</i> embryos, encodes a putative Ser/Thr kinase that is asymmetrically distributed," <i>Cell</i> , May 19, <b>1995</b> , <i>81</i> , 611-620				
	<b>140</b>	Gura, T., "A silence that speaks volumes," <i>Nature</i> , April 20, <b>2000</b> , <i>404</i> , 804-808				
	<b>141</b>	Jorgensen, R.A., et al., "Chalcone sythase cosuppression phenotypes in petunia flowers: comparison of sense vs. antisense constructs and single-copy vs. complex T-DNA sequences," <i>Plant Mol. Biol.</i> , <b>1996</b> , <i>31</i> , 957-973				
	<b>142</b>	Lipardi, C., et al., "RNAi as random degradative PCR: siRNA primers convert mRNA into dsRNAs that are degraded to generate new siRNAs," <i>Cell</i> , November 2, <b>2001</b> , <i>107</i> , 297-307				
<b>EXAMINER</b>			<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office	Docket No. ISIS-5326	Application No. 10/700,930
	Applicant Brenda F. Baker, et al.	
	Filing Date November 4, 2003	Group 1645
	Confirmation No. 5950	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>		
143	Martinez, J., et al., "Single-stranded antisense siRNAs guide target RNA cleavage in RNAi," <i>Cell</i> , September 6, 2002, 110, 563-574	
144	Mellitzer, G., et al., "Spatial and temporal 'knock down' of gene expression by electroporation of double-stranded RNA and morpholinos into early postimplantation mouse embryos," <i>Mechanisms of Development</i> , 2002, 118, 57-63	
145	Montgomery, M.K., et al., "RNA as a target of double-stranded RNA-mediated genetic interference in <i>Caenorhabditis elegans</i> ," <i>Proc. Natl. Acad. Sci. USA</i> , December 1998, 95, 15502-15507	
146	Napoli, C., et al., "introduction of a chimeric chalcone synthase gene into petunia results in reversible co-suppression of homologous genes <i>in trans</i> ," <i>Plant Cell</i> , April 1990, 2, 279-289	
147	Nishikura, K., "A short primer on RNAi: RNA-directed RNA polymerase acts as a key catalyst," <i>Cell</i> , November 16, 2001, 107, 415-418	
148	Parrish, S., et al., "Functional anatomy of a dsRNA trigger: differential requirement for the two trigger strands in RNA interference," <i>Molecular Cell</i> , November 2000, 6, 1077-1087	
149	Schwarz, D.S., et al., "Evidence that siRNAs function as guides, not primers, in the <i>Drosophila</i> and human RNAi pathways," <i>Molecular Cell</i> , September 2002, 10, 537-548	
150	Sijen, T., et al., "On the role of RNA amplification in dsRNA-triggered gene silencing," <i>Cell</i> , November 16, 2001, 107, 465-476	
151	Tabara, H., et al., "RNAi in <i>C. elegans</i> : soaking in the genome sequence," <i>Science</i> , October 16, 1998, 282, 430-431	
152	Tijsterman, M., et al., "RNA helicase MUT-14-dependent gene silencing triggered in <i>C. elegans</i> by short antisense RNAs," <i>Science</i> , January 25, 2002, 295, 694-697	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. ISIS-5326	Application No. 10/700,930
		Applicant Brenda F. Baker, et al.	
		Filing Date November 4, 2003	Group 1645
		Confirmation No. 5950	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	<b>153</b>	Timmons, L., et al., "Ingestion of bacterially expressed dsRNAs can produce specific and potent genetic interferences in <i>Caenorhabditis elegans</i> ," <i>Gene</i> , <b>2001</b> , 263, 103-112	
	<b>154</b>	Timmons, L., et al., "Specific interference by ingested dsRNA," <i>Nature</i> , October 29, <b>1998</b> , 395, page 854	
	<b>155</b>	Tuschl, T., et al., "Targeted mRNA degradation by double-stranded RNA in vitro," <i>Genes &amp; Dev.</i> , <b>1999</b> , 13, 3191-3197	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5326		Application No. 10/700,930	
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<b>U. S. PATENT DOCUMENTS</b>							
<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>	
	<b>156</b>	3,687,808	8/29/72	Merigan, et. al.	195	28	
	<b>157</b>	5,013,830	5/7/91	Ohtsuka, et al.	536	27	
	<b>158</b>	5,023,243	6/11/91	Tullis	514	44	
	<b>159</b>	5,130,302	7/14/92	Spielvogel, et al.	514	45	
	<b>160</b>	5,142,047	8/25/92	Tullis	514	44	
	<b>161</b>	5,149,797	9/22/92	Pederson, et al.	536	27	
	<b>162</b>	5,177,198	1/5/93	Spielvogel, et al.	514	45	
	<b>163</b>	5,223,618	6/29/93	Cook, et al.	544	276	
	<b>164</b>	5,235,033	8/10/93	Summerton, et al.	528	391	
	<b>165</b>	5,256,775	10/26/93	Froehler	536	25.6	
	<b>166</b>	5,264,562	11/23/93	Matteucci	536	23.1	
	<b>167</b>	5,264,564	11/23/93	Matteucci	536	23.1	
	<b>168</b>	5,359,044	10/25/94	Cook, et al.	536	23.1	
	<b>169</b>	5,366,878	11/22/94	Pederson, et al.	435	91.3	
	<b>170</b>	5,378,825	1/3/95	Cook, et al.	536	25.34	
	<b>171</b>	5,457,191	10/10/95	Cook, et al.	536	27.13	
	<b>172</b>	5,459,255	10/17/95	Cook, et al.	536	27.13	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5326		Application No. 10/700,930	
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				Confirmation No. 5950			
<b>U. S. PATENT DOCUMENTS</b>							
<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>	
	173	5,466,786	11/14/95	Buhr, et al.	536	26.26	
	174	5,476,925	12/19/95	Letsinger, et al.	536	23.1	
	175	5,484,908	1/16/96	Froehler, et al.	536	24.31	
	176	5,506,351	4/9/96	McGee	536	55.3	
	177	5,514,786	5/7/96	Cook, et al.			
	178	5,386,023	1/31/95	Sanghvi, et al.	536	25.3	
	179	5,489,677	2/6/96	Sanghvi, et al.	536	22.1	
	180	5,539,083	7/23/96	Cook, et al.	530	333	
	181	5,506,337	4/9/96	Summerton, et al.	528	391	
	182	5,403,711	4/4/95	Walder, et al.	435	6	
	183	5,508,270	4/16/96	Baxter, et al.	514	47	
	184	4,373,071	02/08/83	Itakura	525	375	
	185	4,401,796	08/30/83	Itakura	525	340	
	186	4,469,863	9/4/84	Ts'o., et al.	536	27	
	187	4,507,433	3/26/85	Miller, et al.	525	54.11	
	188	4,812,512	3/14/89	Buendia, et al.	525	54.11	
	189	4,908,405	3/13/90	Bayer, et al.	525	61	
	190	5,391,667	2/21/95	Dellinger	526	264	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5326		Application No. 10/700,930	
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				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5950			
<b>U. S. PATENT DOCUMENTS</b>							
<b>Examiner Initial</b>		<b>Document No.</b>	<b>Date</b>	<b>Name</b>	<b>Class</b>	<b>Subclass</b>	
	<b>191</b>	5,519,134	5/21/96	Acevedo, et al.	544	243	
	<b>192</b>	5,614,617	3/25/97	Cook, et al.	536	23.1	
	<b>193</b>	5,962,425	10/05/99	Walder, et al.	514	44	
	<b>194</b>	5,804,683	09/08/98	Usman et al.	536	25.31	
	<b>195</b>	5,891,683	04/06/99	Usman et al.	435	91.31	
	<b>196</b>	5,898,031	04/27/99	Crooke, et al.	435	172.3	
	<b>197</b>	6,107,094	08/22/00	Crooke	435	455	
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office				Docket No. ISIS-5326		Application No. 10/700,930	
				Applicant Brenda F. Baker, et al.			
				Filing Date November 4, 2003		Group 1645	
				Confirmation No. 5950			
<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Country	Translation		
					YES	NO	
	198	WO 92/20822	11/26/92	PCT			
	199	WO 92/20823	11/26/92	PCT			
	200	WO 92/22651	12/23/92	PCT			
	201	WO 94/02499	02/03/94	PCT			
	202	WO 94/02501	02/03/94	PCT			
	203	WO 94/17093	08/04/94	PCT			
	204	339,842	11/02/89	EPO			
	205	2-264792	10/29/90	Japan			
	206	WO 92/07065	04/30/92	PCT			
	207	WO 99/32619	7/1/99	PCT		X	
	208	WO 00/44895	08/03/00	PCT	X abstract		
	209	WO 00/44914	08/03/00	PCT			
	210	WO 00/49035	08/24/00	PCT			
	211	WO 00/63364	10/26/00	PCT			
	212	WO 01/29058	04/26/01	PCT			
	213	WO 01/36641 A2	05/25/01	PCT			
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			



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				Confirmation No. 5950			
<b>FOREIGN PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Country	Translation		
					YES	NO	
	214	WO 01/36646 A1	05/25/01	PCT			
	215	WO 01/48183 A2	07/05/01	PCT			
	216	WO 01/75164 A3	10/11/01	PCT			
<b>EXAMINER</b>				<b>DATE CONSIDERED</b>			